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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/083,932

02/26/2002

Richard L. Gray

AME-001

8342

22888

7590

05/06/2004

BEVER HOFFMAN & HARMS, LLP  
TRI-VALLEY OFFICE  
1432 CONCANNON BLVD., BLDG. G  
LIVERMORE, CA 94550

EXAMINER

ALEMU, EPHREM

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/083,932

Applicant(s)

GRAY, RICHARD L.

Examiner

Ephrem Alemu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13,31,32,38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-13,31,32,38 and 39 is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasaki et al. (US 5,923,542).

Re claim 1, Sasaki discloses a power source a method and apparatus for driving piezoelectric transformer (i.e., a cold cathode fluorescent light (CCFL) circuit), the method including: determining a frequency provided to power the CCFL circuit based on a duty cycle of a driving waveform to the piezoelectric transformer (CCFL circuit) (Figs. 1, 7; Col. 15, line 3- Col. 16, line 9; wherein the duty cycle (i.e., duty-ratio) of the driving waveform is approximately 50%).

Re claims 3, 4 and 8, Sasaki further shows determining the frequency includes sensing a voltage of the driving waveform at a first node and setting values of a plurality of resistors (i.e., 15, 16) for sensing the voltage of the driving waveform (Figs. 1, 7; Col. 11, lines 36-54; Col. 12, lines 57-67; Col. 15, lines 18-50; wherein determining a frequency includes generating a first DC signal that is proportional to a time-averaged voltage at the first node (i.e., junction between lines 13b & 14B).

Re claims 5, Sasaki further shows setting values is dependent on a defined duty factor (Col. 15, lines 52-64).

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Re claim 6, Sasaki further shows setting values is dependent on a high level of the driving waveform (Col. 15, lines 22-30).

Re claim 7, Sasaki further shows setting values is dependent on a set reference voltage (Col. 15, lines 43-50).

***Response to Arguments***

3. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new grounds of rejection. The allowable subject matter of claim 3 has been withdrawn in view of the new ground of rejection as applied above in paragraph 3.

***Allowable Subject Matter***

4. Claims 9-13, 31, 32, 38 and 39 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fail to teach or suggest, alone or in combination, the following limitations:

“sensing a voltage at a second node that is proportional to a CCFL current; and generating a second DC signal that is proportional to a time-averaged voltage at the second node, wherein the second DC signal is used in determining the frequency” as claimed in claim 9; “selectively resetting a capacitance of the capacitor to zero at the beginning of every dimming cycle of the CCFL circuit, thereby providing a soft start on the line” as claimed in claim 31; “selectively resetting a capacitance of the capacitor to zero to provide a soft start on the line; and switching to a second current source, thereby limiting the voltage increase to a second predetermined amount based on the second current source and the capacitor” as claimed in claim 32; and “using a first and second current sources, respectively, to maintain the first and second predetermined values during a first and second transition of the input signal” in a manner claimed in claim 38.

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Claims 10-13 and 39 are allowed as being dependant over allowed claims 9 and 38.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Henry (US 5,923,129); also teaches similar inventive subject matter.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (571) 272-1818. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EA  
4-26-04

  
TAN HO  
PRIMARY EXAMINER